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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/242,383	02/12/1999	NICHOLAS SIMON MYERS	ORIII.001APC	1000

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EXAMINER

VO, TED T

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/242,383

Applicant(s)

MYERS, NICHOLAS SIMON

Examiner

Ted T. Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 February 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7 and 20-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 20-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

DETAILED ACTION

1. This action is in response to the communication filed on 02/12/99.

Claims 1-6, 8-19 are canceled. Claims 20-38 are added. Claims 7, 20-38 are pending in the application.

*Specification*

2. The specification is objected to:

-a. The following order of arrangement of specification elements is preferable in framing the nonprovisional specification and, except for the reference to a "Microfiche Appendix", each of the lettered items should appear in upper case, without underlining or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading.

For example: page 1: Underlined text: Description of the Prior Art

See Arrangement and Contents of the Specification, within MPEP 601.

-b. It is recommended that texts in the specification, **except Appendix and Drawings**, follow the standard format, in which the texts would not appear under various types of bold, italic, underline, lining, font, font size characters, etc.

For example:

Page 12: Lines 20-30, bold texts are used.

Page 15: Line 10, upper-line closed to text is used; line 19, italic text is used.

Page 12: lines 2, 8, 14, 18, 20, etc., underlined and different font texts are used.

Page 87: lines 14-16, page 163, etc., different font size texts are used.

Applicants require correcting in accordance to MPEP 608.01

-c. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors, and as subject matters specified in accordance to (a) and (b) of which applicant may become aware in the specification.

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***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7, 20-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regards to Claim 7: Claim 7 is pending and dependent on a canceled claim. The claim is indefinite.

With regards to claims 20-24:

It recites the limitation "three classes". This limitation is indefinite. The claimed functionality provides "three classes". However, the identification or the functionality of the three classes is unknown within the scope of the claims. This limitation fails to particularly point out a subject matter of a class.

It recites the limitation "*each of class adapted to perform a different function and at least one of such class modified to do so in a way that reduces code and cycle over head*". This limitation is indefinite because:

-a. It does not know what "different function" is. Each particular class in object oriented programming does a function. Without particularly pointing out means of a function of a class, the limitation tends to be redundant. Therefore, this type of limitation is unclear.

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-b. It does not know the means of "in a way" in which a class is modified. Without particularly pointing out means of "in a way", it fails to identify what a modification is. Therefore, this type of limitation is ambiguous.

-c. It does not know the meaning of "code and cycle over head"; whether it is belonged to a modified class or other classes, functions, programs, etc. Is "cycle over head" is property of a class? Therefore, this type of limitation is vague.

With regards to claims 22, 25-35, and 38:

The independent claim 22 recites an operating system for a computer. The operating system is adapted to handle objects related to string. The claim 22 and its dependent claims 25-28 fail to particularly point out the functionality related to means of handling that is performed by the operating system, and fail to distinctly claim the subject matter of an operating system, but instead the claims, particularly dependent claims 25-38, describe a data structure of objects and an object. These claims fail to meet the requirement of the statute as set forth. It does not know whether the claimed invention claims the handling that is performed by an operating system or it describes objects in an object-oriented language. A claim should clearly set a boundary of its scope. In this subject matter, it should be within handling of the object-oriented operating system. Mixed mode would make the scope of the claims unclear, and thus it fails to meet the requirement as set forth by the statute: particularly pointing out and distinctly claiming the subject matter.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

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subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowlishaw, "The REXX Language A practical Approach to Programming", and Michel, "Getting Started with Object REXX" in view of Henricson et al., "Programming in C++ Rules and Recommendations".

As per claim 22:

Regarding to claim limitation of claim 22, *"An operating system for a computer, the operating system adapted to handle object related to text string and encoded on computer readable media, wherein the operating system handle the objects as belonging to one of three classes, each class optimized to performed a different function and at least one such class modified to do so in a way that reduce code and cycle overhead"*,

-Coleslaw and Michel in combination developed REXX language toward object-oriented matter and used the language to manipulate text string (see Coleslaw, section 12, page 139). For manipulating strings, the REXX model consists of three distinct functions (see Coleslaw, page 139, section: Component of input and out put.). Since REXX is a language, which is adaptable for use in an operating system to manipulate characters (see Coleslaw page 2, "macros"). It assists to reduce robust programs (see Coleslaw page 1, "personal programming"). Coleslaw provides REXX as a programming for an operating system. Coleslaw does not address object oriented operating programming. Michel extends REXX into object-oriented matter (see Michel page 2, Everything is an Object), where an object is inherent in all syntax and semantic of REXX. It would have been obvious to a person of ordinary skill in the art at the time of invention was made to inherit all functionality of a programming language to extend its function toward an oriented manner for conforming to the current technological requirement.

-Both Coleslaw and Michel do not particularly point out the "three classes". They basically develop classes that provide a user to manipulate a literal string (see Michel, page 3 "to create a string object").

-Henricson provides rules and recommendations used in C++. The recommendations include three classes/objects (see example 24, page 31, class Buffer, see example 53, page 60, class pointer, see

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section 7.5, page 32 a generic definition of a class using rule 25, see section 16, page 70, memory allocation using rules 50-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to combine object operating programming REXX (Coleslaw and Michel) with rules and recommendations of Henricson for forming particular classes for manipulating text strings. The string manipulation would help to reduce code and storage with a minimum of overhead. Doing so would conform to requirements used in memory management in which storage limitation is always concerned.

As per claims 20:

It claims a computing device in which its functionality corresponds to the functionality of claim 22. Claim 20 is rejected in the same reason set forth in connecting to the rejection of claim 22.

As per claim 21:

It claims a peripheral device in which its functionality corresponds to the functionality of claim 22. Claim 21 is rejected in the same reason set forth in connecting to the rejection of claim 22.

As per claim 23:

It claims a method in which its functionality corresponds to the functionality of claim 22. Claim 23 is rejected in the same reason set forth in connecting to the rejection of claim 22.

As per claim 24:

It claims a computer media in which its functionality corresponds to the functionality of claim 22. Claim 24 is rejected in the same reason set forth in connecting to the rejection of claim 22.

As per claim 25: Henricson's rules and recommendations include class pointer (Henricson: see example 52).

As per claim 26: The claim limitation is inherently in a programming definition of pointers where a pointer can be used to point to other class or used in memory allocation (Henricson: see section 16).

As per claim 27:

The claim is inherently object structure.

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Examiner note: a claim which recites a term in a feature without further limitation to function the term would be inherent in the feature. In this subject matter, the claim includes the term 'flat structure' to associate to a class without further limitation to function the 'flat structure'. It would be inherent in the class structure (See MPEP 706.03(a)).

As per claim 28:

The claim limitation is inherently in the programming instructions. The REXX, which is extended to objects, comprises instructions related to characters (see page 144) for handling length limited text.

As per claim 29:

The REXX, which is extended to object oriented language, comprises sub set of instructions (see page 144) such as push pull queue having a potential for doing memory management.

As per claim 30:

The REXX language, which is extended to object oriented language, comprises instructions (see page 144) such as Buffer, Linein, etc., having means for handling length limited using a static memory.

As per claim 31:

The REXX Object, which is extended from the REXX language, has means of flat structure since the object can be copied.

As per claim 32:

The REXX language, which is extended to object oriented language, comprises Heap (Henricson: see page 88, Memory allocation), which handles memory management.

As per claims 33-34:

Polymorphic is inherent in object-oriented programming language.

As per claim 35:

Sharing field and data is a common property of a programming language. A declaration in programming language does this.

As per claims 36-37:

Claims 36-37 are inherent in instructions of a programming language. A declaration that declares words, bytes, etc., does this.



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As per claim 38:

The REXX, which is extended to objects, comprises instructions related to characters (see page 144) having no terminator.

**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Shaughnessy**, US Patent No. 5,787,431.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (703) 308-9049. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM ET. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam, can be reached on (703) 305-4552.

The fax phone numbers for this Group are:

Official: (703) 746-7239;

After Final: (703) 746-7238;

Non-Official: (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

TTV  
August 5, 2003



**TUAN Q. DAM**  
**PRIMARY EXAMINER**